DENVER FORECAST DISTRICT.*

[Wyoming, Colorado, Utah, New Mexico, and Arizona.]

Temperature was considerably above normal except in the southern portions of New Mexico and Arizona where there was a slight deficiency. Precipitation was in excess in the southern and deficient in the northern portions of the district. Frosts were frequent, but less severe than usual, and their occurrence was generally well covered by the warnings.—*P. McDonough, Local Forecaster, temporarily in charge.*

SAN FRANCISCO FORECAST DISTRICT.†

[California and Nevada.]

From the 15th to 28th showers were frequent over the greater portion of the district, with thunderstorms and heavy hail in the mountains. Rainfall was unusually heavy from San Francisco Bay southward, but was below normal in the northern portion of California. No frost or storm warnings were issued.—*G. H. Willson, Local Forecaster, temporarily in charge.*

PORTLAND, OREG., FORECAST DISTRICT.†

[Oregon, Washington, and Idaho.]

Except for short periods about the middle of the month and near the close of the second decade clear weather prevailed from the 2d to 25th. The last few days of the month were stormy. Frost was frequent east of the Cascade Mountains.—*L. Lodholz, Local Forecaster.*

RIVERS AND FLOODS.

River matters continued without special feature thruout the month. The heavy rains of the 3d and 4th in Texas caused rather rapid rises in the Trinity, Brazos, and Colorado rivers, necessitating advisory warnings; but flood stages were neither anticipated nor reached, and no damage was done. There was also a sharp rise of several feet in the Guadalupe River of Texas during the last two days of the month, advices regarding which were distributed on the 30th. There were heavy rains over the valley of the Connecticut River on the 28th and 29th, and by the morning of the 29th the river was rising rapidly. Warnings for flood stages from Hartford to Long Island Sound were issued on the 30th, and on the morning of the 31st the stage of the river at Hartford was 17.3 feet, 1.3 feet above the flood stage. Considerable inconvenience resulted, but no great damage was done.

The highest and lowest water, mean stage, and monthly range at 202 river stations are given in Table VI. Hydrographs for typical points on seven principal rivers are shown on Chart I. The stations selected for charting are Keokuk, St. Louis, Memphis, Vicksburg, and New Orleans, on the Mississippi; Cincinnati and Cairo, on the Ohio; Nashville, on the Cumberland; Johnsonville, on the Tennessee; Kansas City, on the Missouri; Little Rock, on the Arkansas; and Shreveport, on the Red.—*H. C. Frankenfield, Professor of Meteorology.*

* Morning forecasts made at district center; night forecasts made at Washington, D. C.

† Morning and night forecasts made at district center.

SPECIAL ARTICLES, NOTES, AND EXTRACTS.

HIGHEST KITE FLIGHT AT MOUNT WEATHER, VA.

[By permission of the Chief of Bureau and thru the kindness of Prof. W. J. Humphreys and Dr. W. R. Blair, we are enabled to print this report on the kite flight on October 3, 1907, the "international date", when the altitude above sea level reached by the leading kite and the meteorograph is believed to be the greatest yet attained in any kite ascension. The flight began at 7:00 a. m., and ended at 11:04 p. m.]

Kite flight of October 3, 1907 (international date).

Time.	Surface conditions (at Mount Weather, 1,725 feet above sea level).				Conditions aloft.			Clouds.
	Temp.	Rel. hum.	Direction of wind.	Velocity of wind.	Elevation above sea level.	Temp.	Direction of wind.	
	°F.	Per ct.		m. p. h.	Feet.	°F.		
7:00 a. m.	62.7	78	w.	17	1,725	62.7	w.	
7:21 a. m.	64.2	75	w.	16	2,524	67.5	wnw.	4 ci. w.
8:30 a. m.	68.0	66	w.	14	2,980	71.8	nw. by w.	
10:16 a. m.	71.0	62	w.	13	4,906	62.4	w.	1 ci.-s. w. 1 a.-cu. nw. 1 cu. w.
12:30 p. m.	72.5	65	w.	10	7,472	49.8	wsw.	1 a.-cu. nw. 9 s.-cu. wnw.
1:27 p. m.	73.4	64	w.	8	10,376	39.7	w. by n.	6 a.-cu. nw. few cu. nw.
2:53 p. m.	74.5	62	s.	9	14,606	33.1	nw. by w.	2 a.-s. wnw. 5 s.-cu w.
3:44 p. m.	73.5	62	s.	7	16,738	24.1	wnw.	3 a.-s. wnw. 2 s.-cu. w.
4:40 p. m.	72.7	62	s.	8	19,198	14.7	wnw.	
5:33 p. m.	71.4	63	sw.	9	21,973	+ 1.8	wnw.	
6:05 p. m.	70.0	65	s.	10	23,110	− 5.4	wnw.	2 a.-s. wnw.
7:57 p. m.	70.4	62	sw.	11	21,116	+ 6.1	wnw.	
8:40 p. m.	70.9	61	sw.	12	18,710	13.3	wnw.	clear sky.
9:18 p. m.	71.0	60	sw.	13	12,667	30.6	w.	
10:12 p. m.	70.0	59	sw.	13	7,491	50.5	wsw.	
10:34 p. m.	70.0	58	sw.	12	5,733	57.2	wsw.	
10:50 p. m.	70.5	58	sw.	13	3,836	63.7	wsw.	
11:04 p. m.	70.3	55	sw.	14	1,725	70.3	sw.	

Notes.—Cumulus cloud elevation at 1:53 p. m. about 6,500 feet, one cloud passing under fourth kite.

Pressure at maximum altitude, 12.56 inches.

The flight was made with eight kites, having a combined lifting surface of 505 square feet. Four kites, 2,500 feet apart, were placed at the upper end of the line, and, beginning at 18,500 feet, four more, about 5,000 feet apart, were added.

Wire out at maximum elevation was 37,300 feet; maximum wire out was 38,500 feet. The length and size of the piano wire used for the line was as follows:

Diameter.	Length.
Inch.	*Feet.*
.026	2,500
.028	5,000
.032	11,000
.036	20,200

The barometer was high over the Carolinas and low over the upper Mississippi Valley.—*W. R. B.*

INTERCONVERSION OF CENTIGRADE AND FAHRENHEIT SCALES.

By F. K. FERGUSON, Superintendent of Schools. Dated Paola, Kansas, November 23, 1907.

I notice in the February, 1907, number of the MONTHLY WEATHER REVIEW, an article on pages 62 and 63 entitled "Interconversion of centigrade and Fahrenheit degrees." I was much interested in the article, as I have invented a method of interconversion of these scales which, laying aside the question as to whether it is easy to "divide by 5 and multiply by 9," is a very easy rule to remember. The difficulty is not so much the dividing by 5 and the multiplying by 9 as it is to remember, on the spur of the moment, whether we add 32 and then take $\frac{9}{5}$ or take $\frac{9}{5}$ and then add 32; or whether we subtract 32 and then take $\frac{5}{9}$ or take $\frac{5}{9}$ and then subtract 32.

The following are my rules: To convert Fahrenheit reading to centigrade reading—to the Fahrenheit reading add 40, take $\frac{5}{9}$ of the sum, and then subtract 40. To convert centigrade reading to Fahrenheit reading—to the centigrade reading add 40, take $\frac{9}{5}$ of the sum, and then subtract 40. Or by formulas:

$$C. = \tfrac{5}{9}(F. + 40) - 40.$$
$$F. = \tfrac{9}{5}(C. + 40) - 40.$$

You see this method is simple and easy to remember, for in each case the process is exactly the same, excepting the fractions $\frac{5}{9}$ and $\frac{9}{5}$. But it is quite easy to remember which fraction to use in the given case; for if it is Fahrenheit reading that you have, the centigrade for which you are figuring is to be a smaller reading; hence use the smaller fraction, $\frac{5}{9}$. Likewise when you have centigrade and are figuring for Fahrenheit, use the fraction $\frac{9}{5}$.